

REMARKS

Claims 1-15, 17-32, and 51 are pending. In the office action, claims 1-13 and 15 are allowed. Claims 14, 17, 18, 23 and 32 are rejected under 35 U.S.C. 102(b) as being unpatentable over Albrecht (U.S. Patent 5,835,594). Claims 28-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Albrecht and Shona (U.S. Patent 5,799,085). Claims 19-22 and 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Albrecht and Schrenk (U.S. Patent 5,889,266).

Claim 14 has been amended to facilitate prosecution. Support for this amendment may be found at least on page 13, lines 22-25.

Claim 17 has been amended to facilitate prosecution. Support for this amendment may be found at least at page 17, lines 1-5.

Applicants gratefully acknowledge the allowance of claims 1-13 and 15.

Claim 14

Claim 14 is rejected as being anticipated by Albrecht. Applicants respectfully traverse. Claim 14 recites an operation of “disabling user logic provided for implementation of the configuration data after it is loaded onto the configurable device.” The user logic provided for the implementation of the configuration data is first programmed onto the configurable device along with configuration data for the authentication system components. The user logic is then disabled (disabling operation). After authentication, the user logic is enabled if successful; otherwise it remains disabled (enabling operation).

The Examiner argued that Albrecht in column 4 lines 25-30 teaches this recitation because “the FLASH memory is write disabled.” (Office Action, page 3, last paragraph)

Applicants respectfully submit that write disabled FLASH memory does not teach a disabling user logic operation after the user logic operation is loaded onto the device. Abrecht states:

Flash security circuit 226 protects FLASH memory 224 from unauthorized write accesses, by keeping FLASH memory 224 write disabled, and generating an SMI to invoke the secured system BIOS write data authentication functions in system management memory 222 to authenticate the write data, whenever it enables FLASH memory 224 for a write access. (column 4, lines 25-30)

As understood from the passage and surrounding text, the write data is authenticated before write access to the FLASH memory is granted. Albrecht teaches authenticating before copying or writing the write data into the FLASH memory, as shown in Figure 7. Assuming the write data of Albrecht is equivalent to user logic of claim 14, the invention as recited in claim 14 actually recites very different operations. The user logic is copied first before authenticating.

Further, Albrecht discloses a method that would reject all write data if the authentication fails. The operation of the devices (i.e. FLASH memory, BIOS) in Albrecht does not depend on the write data itself. This is not so here. As recited in claim 14, configuration data includes user logic and authorization system component configuration. The user logic portion of the configuration remains disabled if the authentication fails. The authorization system component configuration portion remains programmed in the configurable device in order to authenticate the use of the user logic by the configurable device.

For at least the foregoing reason, Albrecht does not anticipate claim 14. Albrecht in combination with other references does not render claim 14 obvious either. Neither Shona nor Schrenk cures the deficiencies of Albrecht. Thus claim 14 is patentable over Albrecht and cited references. Withdrawal of this rejection is respectfully requested.

Claim 17

Claim 17 was rejected as being anticipated by Albrecht. The Office Action states: "As for claim 17, the claim is directed toward the apparatus that carries out the method of claim 14. Claim 17 recites substantially the same limitations as claim 14 and is thereby rejected on the same basis." (Office Action, page 5, first paragraph)

Applicants respectfully submit that claim 17 is instead directed toward the apparatus that carries out the method of allowed claim 1. Particularly, claim 17 includes the element of a disabling signal generator also present in allowed claim 1.

Albrecht does not teach or suggest a disabling signal generator to disable user logic. Albrecht only states that “flash security circuit 226 protects FLASH memory 224 from unauthorized write accesses, by keeping FLASH memory 224 write disabled.” A flash security circuit protecting a FLASH memory 224 from unauthorized write accesses is not a disabling signal generator writing an error bit to disable user logic. Again it is theoretically conceivable that a FLASH memory 224 could be write disabled by writing an error bit to the FLASH memory. However, this is not the mechanism taught or suggested and it can not be assumed that Albrecht operates in this way as there are numerous ways of write protecting a FLASH memory. Since Albrecht does not specify how the FLASH memory is write protected, it is believed that Albrecht uses a conventional mechanism which involves intercepting write accesses using the flash security circuit. This is not a signal generator writing an error bit.

Thus Albrecht does not anticipate claim 17 or its dependent claims. Albrecht in combination with other references does not render claim 17 and its dependent claims obvious. Neither Shona nor Schrenk cures the deficiencies of Albrecht. Thus claim 14 is patentable over Albrecht and cited references. Withdrawal of this rejection is respectfully requested.

CONCLUSION

In light of the above remarks, the rejections to the independent claims are believed overcome for at least the reasons noted above. Applicants' Representative believes that all pending claims are allowable in their present form. If prosecution of this application can be assisted by telephone, the Examiner is requested to call Applicant's undersigned attorney at (510) 663-1100.

If any fees are due in connection with the filing of this amendment (including any fees due for an extension of time), such fees may be charged to Deposit Account No. 504480 (Order No. ALTRP062).

Respectfully submitted,
Weaver Austin Villeneuve & Sampson LLP

/G. Audrey Kwan/
Godfrey Audrey Kwan
Reg. No. 46,850

/Cindy H. Shu/
Cindy H. Shu
Reg. No. 48,721

P.O. Box 70250
Oakland, CA 94612-0250
(510) 663-1100